REMARKS

Claims 1-6 are pending in the application. By this Amendment, claim 6 has been amended. No new matter has been entered. It is submitted that this Amendment is fully responsive to the Office Action dated May 29, 2007.

Priority Documents

On page 2, item 1 of the Action, while the Examiner has acknowledged applicant's claim for foreign priority based on JP 2003-116101, the Examiner has not acknowledged that a certified copy of the priority document was received from the International Bureau (PCT Rule 17.2(a)).

Applicants provide herewith a copy of the form PCT/IB/304 that was forwarded from the International Bureau, indicating previous Patent Office receipt of the certified copies of the priority documents.

Claim Objection

Claim 6 is objected to as being in improper form of multiple dependent claim.

This objection is respectfully traversed. It is respectfully submitted that such errors have been corrected by the present Amendment according to MPEP 608.01(n), *A. Acceptable Multiple Dependent Claim Wording.*

Claim Rejections - 35 U.S.C. §102

Claims 1and 3 are rejected under 35 U.S.C. §102(e) as being anticipated by Eriksson et al. (USP 6,963,733).

This rejection is respectfully traversed.

Claim 1

Claim 1 recites (a) "a gain control signal generating unit operable to generate a gain control signal based on a signal obtained from one of the plurality of signal processing units", (b) "a plurality of variable gain units, (i) each of which is included in one of the plurality of signal processing units, and (ii) whose gains are controlled based on the gain control signal" and (c) "a gain standardizing unit operable to, when the gains are uniformly controlled based on the gain control signal, assign a gain to each of the plurality of signal processing units to offset a gain deviation occurring therein."

With regard to the independent claim 1, it is submitted that Eriksson et al. is completely silent regarding the above claim features (a), (b) and (c).

Claim feature (a)

First, the Examiner's ground of anticipation of the feature (a) is based on Fig. 3, element 50 (common AGC controller) and the description of column 5, lines 15-19 (page 3, item 5 of the

Action). However, these parts of Eriksson et al. do not disclose the feature (a) as discussed below.

The function of common AGC controller 50 is to coordinate the operations of branch AGC controllers 46A, 46B (see column 5, lines 18-19). Specifically, the function of the common AGC controller 50 is to prevent simultaneous AGC branch transients **by allowing only one of the AGC controllers 46A, 46B to adapt its branch gain for a particular time period** (column 5, lines 43-46).

In this regard, Eriksson describes that if an input signal exceeds the nominal blocking level of the ADC 12, the ADC 12 "clips" that signal causing high distortion levels harmonically related to the frequency of that input signal (see column 1, lines 24-28), thus an automatic gain controller detects when the received signal exceeds a predefined threshold and adjust the gain (column 1, lines 39-49). Despite the benefits of the AGC controller's ability to reduce (or increase) the gain, each change of gain causes a transient which increases distortion levels and the bit error rate (column 2, lines 1-5).

Therefore, the objective of Eriksson et al. is to reduce automatic gain control (AGC) transients by using first and second AGC processing branches to receive a signal. If the AGC thresholds in the first and second AGC branches are exceeded, and assuming for example that the

AGC threshold in the first AGC branch is first exceeded, **the gain in the first AGC processing branch is selected for adjustment during a first time period. However, the gain in the second AGC processing branch is not adjusted during that first time period.** The signals generated by the first and second AGC processing branches are then diversity processed to generate a received signal. The diversity processing effectively selects the branch currently without gain adjustment and thereby reduces the effect of any AGC transient. One way of diversity processing is to base branch selection or weighting on signal-to-noise-and-distortion for each branch (column 3, lines 23-38).

Therefore, the function of common AGC controller 50 is merely to **select only one of the AGC controllers 46A, 46B to adjust its branch gain for a particular time period** to prevent simultaneous AGC branch transients.

On the contrary, in the present claimed invention, a gain control signal generating unit generates a gain control signal based on a signal obtained from one of the plurality of signal processing units.

Therefore, it is submitted that the common AGC controller 50 of Eriksson et al. is completely different from the gain control signal generating unit of claim 1 which generates a gain control signal based on a signal obtained from one of the plurality of signal processing units.

Accordingly, Eriksson is completely silent regarding the claimed feature (a) "a gain control signal generating unit operable to generate a gain control signal based on a signal obtained from one of the plurality of signal processing units."

Claim feature (b)

Next, the Examiner's ground of anticipation of the feature (b) is based on Fig. 3, element 42A, 42B (variable gain amplifiers). However, these elements of Eriksson et al. do not disclose the feature (b) as discussed below.

The claimed feature (b) recites "a plurality of variable gain units, (i) each of which is included in one of the plurality of signal processing units, and (ii) **whose gains are controlled based on the gain control signal**."

In other words, in the present claimed invention, if the antecedents are not abbreviated, **the gains of the plurality of variable gain units are controlled based on the gain control signal generated by the gain control signal generating unit**.

On the contrary, in Eriksson et al., the gain of amplifiers 42A, 42B are **controlled by the AGC controllers 46A, 46B** (column 5, lines 57-61).

In other words, the gain control signals, by which the amplifiers 42A and 42B of Eriksson et al. are controlled, are respectively sent from the AGC controllers A and B (46A and 46B).

However, the signal by which the variable gain amplifiers (26a and 26b) of the present application are controlled is based on one and only one gain control signal generated by the gain control signal generating unit.

Therefore, it is submitted that the amplifiers 42A, 42B of Eriksson et al. are silent with regard to the claimed feature (b) "a plurality of variable gain units, (i) each of which is included in one of the plurality of signal processing units, and (ii) whose gains are controlled based on the gain control signal."

Claim feature (c)

Next, the Examiner's ground of anticipation of the above feature (c) is based on Fig. 3, elements 46A, 46B (AGC controllers) and the description of column 5, lines 31-33. However, these parts of Eriksson et al. do not disclose the feature (c) as discussed below.

First, the Examiner asserts that since the AGC controllers 46A, 46B compare the received signal with a threshold signal, it can be anticipated that the AGC controllers will adapt the variable amplifier gain based on the threshold signal (see page 3, item 5 of the Action).

However, it is submitted that the Examiner appears to mischaracterize the feature (c) of claim 1.

In other words, even if, assuming *arguendo*, that as asserted by the Examiner, the AGC controllers 46A, 46B of Eriksson et al. will adapt the variable amplifier gain based on the threshold signal, this asserted feature of Eriksson et al. is completely different from the claimed feature (c).

The feature (c) recites "a gain standardizing unit operable to, when the gains are uniformly controlled based on the gain control signal, assign a gain to each of the plurality of signal processing units to offset a gain deviation occurring therein."

In other words, in the present claimed invention, if the antecedents are not abbreviated, a gain standardizing unit **assigns a gain to each of the plurality of signal processing units** to offset a gain deviation occurring in the each of the plurality of signal processing units **when the**

gains of the plurality of variable gain units are uniformly controlled based on the gain control signal generated by the gain control signal generating unit.

First, while the Examiner asserts that the AGC controllers 46A, 46B of Eriksson et al. will adapt the variable amplifier gain **based on the threshold signal**, the threshold signals T1 and T2 are not generated by the common AGC controller 50 (see Fig. 3). Also, Eriksson does not disclose that the common AGC controller 50 generates the threshold signals T1 and T2.

Therefore, Eriksson is completely silent regarding that the gains of the plurality of variable gain units are uniformly controlled **based on the gain control signal generated by the gain control signal generating unit.**

Second, in Eriksson et al., each of the amplifier 42A and 42B is merely connected to its corresponding AGC controller 46A or 46B (see Fig. 3) and only controlled by the corresponding AGC controller 46A or 46B (column 5, lines 57-65).

In other words, **the gain of the amplifier 42A is merely controlled by the AGC controller 46A independently from the gain of the amplifier 42B.**

Furthermore, as repeatedly described in Eriksson et al., **during the gain of the amplifier 42A is adjusted by the AGC controller 46A, the adjustment of the gain of the amplifier 42B is prevented** (column 5, lines 57-61).

Therefore, it is submitted that Eriksson is completely silent regarding that **the gains of the plurality of variable gain units are uniformly controlled** based on the gain control signal generated by the gain control signal generating unit.

Thus, it is also submitted that Eriksson is completely silent regarding **the gain deviation** which occurs in the each of the plurality of signal processing units **when the gains of the plurality of variable gain units are uniformly controlled based on the gain control signal generated by the gain control signal generating unit.**

Moreover, as discussed above, in Eriksson et al., each of the amplifier 42A and 42B is merely connected to its corresponding AGC controller 46A or 46B (see Fig. 3) and only controlled by the corresponding AGC controller 46A or 46B (column 5, lines 57-65).

Therefore, neither of the AGC controller 46A and 46B **can assign a gain to each of the plurality of signal processing units 40A and 40B.**

Accordingly, it is submitted that Eriksson et al. is completely silent regarding the feature (c) "a gain standardizing unit operable to, when the gains are uniformly controlled based on the gain control signal, assign a gain to each of the plurality of signal processing units to offset a gain deviation occurring therein."

In view of the above, it is submitted that Eriksson et al. does not disclose or fairly suggest the claimed feature of (a) "a gain control signal generating unit operable to generate a gain control signal based on a signal obtained from one of the plurality of signal processing units", (b) "a plurality of variable gain units, (i) each of which is included in one of the plurality of signal processing units, and (ii) whose gains are controlled based on the gain control signal" and (c) "a gain standardizing unit operable to, when the gains are uniformly controlled based on the gain control signal, assign a gain to each of the plurality of signal processing units to offset a gain deviation occurring therein," as called for in claim 1.

Accordingly, claim 1 is not anticipated by Eriksson et al.

Claim 3

Claim 3 is directly dependent from claim 1 and recites the additional features set forth therein. Accordingly, claim 3 is not anticipated by Eriksson et al. for at least the reasons set forth

above.

Moreover, claim 3 recites (d) "the gain standardizing unit prestores, for each of the plurality of signal processing units, an offset corresponding to the gain deviation", (f) "the gain control signal is corrected, for each of the plurality of signal processing units, by adding the prestored offset thereto."

Claim feature (d)

First, the Examiner's ground of anticipation of the feature (d) is based on the description of column 5, lines 26-27 (page 3, item 6 of the Action). However, these parts of Eriksson et al. do not disclose the feature (d) as discussed below.

Specifically, those parts of Eriksson et al. merely describes that each AGC controller 46A, 46B compares the signal level of its received signal with a corresponding threshold T1, T2.

On the contrary, in the present claimed invention, the gain standardizing unit **prestores an offset corresponding to the gain deviation for each of the plurality of signal processing units.**

Importantly, comparing the signal level with the threshold is completely different from prestoring an offset corresponding to the gain deviation.

Therefore, it is submitted that Eriksson et al. is completely silent regarding the feature (d) "the gain standardizing unit prestores, for each of the plurality of signal processing units, an offset corresponding to the gain deviation."

Claim feature (f)

Second, the Examiner's ground of anticipation of the feature (f) is based on the description of column 5, lines 31-33 (page 3, item 6 of the Action). However, these parts of Eriksson et al. do not disclose the feature (f) as discussed below.

Specifically, those parts of Eriksson et al. merely describes that if the detected level exceeds the branch threshold, the branch AGC controller may consider adapting (decreasing) the branch amplifier gain.

Importantly, while Eriksson et al. describes that the branch AGC controller adapts the gain, Eriksson et al. is completely silent regarding **how to adapt the branch amplifier gain**.

On the contrary, in the present claimed invention, the gain control signal is corrected by **adding the prestored offset thereto for each of the plurality of signal processing units**.

Therefore, it is submitted that Eriksson et al. is completely silent regarding the feature (f) "the gain control signal is corrected, for each of the plurality of signal processing units, by adding the prestored offset thereto."

In view of the above, it is again submitted that claim 3 is not anticipated by Eriksson et al.

Claim Rejections - 35 U.S.C. §103

Claim 2 is rejected under 35 U.S.C. §103(a) as being unpatentable over Eriksson et al. (USP 6,963,733) in view of Banh et al. (USP 5,721,757).

This rejection is respectfully traversed. Since claim 2 is dependent directly from claim 1 and claim 1 is not anticipated by Eriksson et al., Eriksson et al. even combined with Banh et al. never reach claim 2 of the present Application. Therefore, the rejection under 35 U.S.C. §103(a) should be withdrawn on the basis of the same reason set forth above.

Claims 4 and 5 are rejected under 35 U.S.C. §103(a) as being unpatentable over Eriksson et al. (USP 6,963,733) in view of Takakusaki (USP 7,058,425).

This rejection is respectfully traversed. Since claims 4 and 5 are dependent from claim 3 and claim 3 is not anticipated by Eriksson et al., Eriksson et al. even combined with Takakusaki never reach claims 4 and 5 of the present Application. Therefore, the rejection under 35 U.S.C. §103(a) should be withdrawn on the basis of the same reason set forth above.

Claims 6/1 and 6/3 are rejected under 35 U.S.C. §103(a) as being unpatentable over Eriksson et al. (USP 6,963,733) in view of Kobayakawa et al. (USP 6,058,318).

This rejection is respectfully traversed. Since claims 6/1 and 6/3 are dependent directly or indirectly from claim 1 and claim 1 is not anticipated by Eriksson et al., Eriksson et al. even combined with Kobayakawa et al. never reach claims 6/1 and 6/3 of the present Application. Therefore, the rejection under 35 U.S.C. §103(a) should be withdrawn on the basis of the same reason set forth above.

Claim 6/2 is rejected under 35 U.S.C. §103(a) as being unpatentable over Eriksson et al. (USP 6,963,733) in view of Banh et al. (USP 5,721,757) in further view of Kobayakawa et al. (USP 6,058,318).

This rejection is respectfully traversed. Since claim 6/2 is dependent indirectly from claim 1 and claim 1 is not anticipated by Eriksson et al., Eriksson et al. even combined with Banh et al. and Kobayakawa et al. never reach claim 6/2 of the present Application. Therefore, the rejection under 35 U.S.C. §103(a) should be withdrawn on the basis of the same reason set forth above.

Claims 6/4 and 6/5 are rejected under 35 U.S.C. §103(a) as being unpatentable over Eriksson et al. (USP 6,963,733) in view of Takakusaki (USP 7,058,425) in further view of Kobayakawa et al. (USP 6,058,318).

This rejection is respectfully traversed. Since claims 6/4 and 6/5 are dependent indirectly from claim 3 and claim 3 is not anticipated by Eriksson et al., Eriksson et al. even combined with Takakusaki and Kobayakawa et al. never reach claims 6/4 and 6/5 of the present Application. Therefore, the rejection under 35 U.S.C. §103(a) should be withdrawn on the basis of the same reason set forth above.

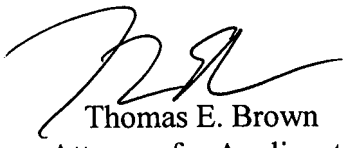
In view of the aforementioned amendments and accompanying remarks, Applicants submit that that the claims, as herein amended, are in condition for allowance. Applicants request such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP



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PATENT COOPERATION TREATY

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NOTIFICATION CONCERNING SUBMISSION OR TRANSMITTAL OF PRIORITY DOCUMENT

(PCT Administrative Instructions, Section 411)

Date of mailing (day/month/year) 05 July 2004 (05.07.2004)	
Applicant's or agent's file reference F1040309WO00	**IMPORTANT NOTIFICATION**
International application No. PCT/JP2004/005704	International filing date (day/month/year) 21 April 2004 (21.04.2004)
International publication date (day/month/year) Not yet published	Priority date (day/month/year) 21 April 2003 (21.04.2003)
Applicant SANYO ELECTRIC CO., LTD. et al	

1. By means of this Form, which replaces any previously issued notification concerning submission or transmittal of priority documents, the applicant is hereby notified of the date of receipt by the International Bureau of the priority document(s) relating to all earlier application(s) whose priority is claimed. Unless otherwise indicated by the letters "NR", in the right-hand column or by an asterisk appearing next to a date of receipt, the priority document concerned was submitted or transmitted to the International Bureau in compliance with Rule 17.1(a) or (b).

2. (If applicable) The **letters "NR"** appearing in the right-hand column denote a **priority document which, on the date of mailing of this Form, had not yet been received by the International Bureau** under Rule 17.1(a) or (b). Where, under Rule 17.1(a), the priority document must be submitted by the applicant to the receiving Office or the International Bureau, but the applicant fails to submit the priority document within the applicable time limit under that Rule, **the attention of the applicant is directed** to Rule 17.1(c) which provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.

3. (If applicable) An **asterisk(*)** appearing next to a date of receipt, in the right-hand column, denotes a **priority document submitted or transmitted to the International Bureau but not in compliance with Rule 17.1(a) or (b)** (the priority document was received after the time limit prescribed in Rule 17.1(a) or the request to prepare and transmit the priority document was submitted to the receiving Office after the applicable time limit under Rule 17.1(b)). Even though the priority document was not furnished in compliance with Rule 17.1(a) or (b), the International Bureau will nevertheless transmit a copy of the document to the designated Offices, for their consideration. In case such a copy is not accepted by the designated Office as priority document, Rule 17.1(c) provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.

Priority date	Priority application No.	Country or regional Office or PCT receiving Office	Date of receipt of priority document
21 Apri 2003 (21.04.2003)	2003-116101	JP	01 July 2004 (01.07.2004)

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